**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
WASHINGTON, D.C. 20460

JUL 17 1991

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

**SUPERSEDED** by memorandums dated August 5, 1998 and February 23, 1999

Mr. Charles A. Frey
Highland Tank and MFG. Company
99 West Elizabethtown Road
Manheim, PA 17545-9410

Dear Mr. Frey:

This letter follows up your recent visit to the Office of Underground Storage Tanks in which you requested a response in writing to the two issues raised in our meeting. I appreciated meeting you and hope the following information provides the clarification you seek.

The first issue we discussed was whether or not a FRP-Clad (or composite) steel tank that is manufactured in accordance with the appropriate national consensus codes (e.g., Act 100) or independent lab standards (U.L. 1746) must have cathodic protection monitoring every 3 years in accordance with 280.31(b)(1) if the tank manufacturer adds an anode to the tank for extra corrosion protection. EPA believes that cathodic protection monitoring should not be required if it is not necessary to protect human health and the environment, and that there may be technical merit to not monitoring the cathodic protection this type of tank. However, the addition of an anode is not covered, or allowed in any of the consensus codes for fiberglass-clad steel tanks that we are aware of. The codes require that the clad cover the entire exterior surface of the tank, with no breaks or holidays. The anode attachment would create such a break. Therefore EPA cannot allow this type of tank to be considered a FRP-Clad steel tank. As provided in the final EPA technical requirements, FRP-clad tanks without anodes satisfy EPA new tank requirements under 280.20(a)(3).

If you wish to pursue this matter further, I can suggest the following course of action. Work with one or more of the consensus code-making groups to make provisions for attaching anodes to FRP-clad tanks. The tanks would then be considered by EPA to be FRP-clad tanks and <u>not</u> required cathodic protection monitoring.

The second issue you raised was whether the outer wall of a double-walled tank must be corrosion protected and if such cathodic protection system must be monitored every 3 years. EPA's Subtitle I requirements mandate corrosion protection for any portion of the metal underground storage tank system that routinely contains product and is in contact with the

ground. In a double-walled steel tank the inner wall of the structure contains the product but it is protected from external corrosion by the cuter wall. Thus cathodic protection monitoring of the outer wall is not required under EPA regulations.

EPA is concerned that the release detection provided by the outer wall work reliably over the life of the system. Also, any breach in the outer wall would have to be repaired or corrosion protection would have to be retrofitted to the system to protect the primary, inner wall from corrosion. If this could not be done, then the tank would have to be closed. In sum, cathodic protection monitoring of the outer shell of a double-walled steel tank makes sound economic sense, but it is not required by the EPA technical standards.

I hope the above information clarifies OUST's regulatory interpretation of the above two issues. Please contact me if you have any further questions on this matter.

Sincerely,

David O'Brien, Chief
Technical Standards Branch
Office of Underground Storage Tanks

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